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AUTHOR	Odden, Allan
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ABSTRACT

This study presents California's recent history of public revenue funding for elementary and secondary education and projects the state's educational and fiscal needs for the next five years. California has experienced a roller-coaster pattern in funding support since 1978, the year of Proposition 13. School financing declined from a position of national leadership in the 1960s to below the national average--a level inadequate for the increasingly high-technology economy. The state began working toward improved educational quality in 1983 by demanding more of teachers and students and by providing new funding, achieving a constant funding level during 1983-85. The second section analyzes educational issues for the next five years: implementation of reform, changing student demographics, high school dropout rate, decline in quantity and quality of people entering and remaining in teaching, and capital construction. The final section summarizes revenue needs for these issues, including growth projections and strategies for raising revenue. In spite of the beneficial effects of the reform, the present challenge is to maintain a high priority for education, and to continue additional funding. (CJH)

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Allan Odden

May 1986

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School Finances, Reforms, and Revenue Needs

Allan Odden

May 1986

Allan Odden is associate professor of education at the University of Southern California and director of the Southern California PACE Center.

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Policy Analysis for California Education (PACE)
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Executive Summary

This paper discusses the recent course of elementary and secondary education in California and its needs for the next five years. Funding is a key element in the health of the system, and several trends are evident. First, since 1978 real revenues per pupil for California's K-12 public education system have fallen significantly in three years, risen significantly in three others, and stayed about the same in two other years--a roller coaster pattern of funding, and a pattern making it difficult at best for local educators to plan sound, medium term education programs.

Second, inflation-adjusted revenues per pupil have not increased one dollar in this decade and have actually dropped slightly. Funding increases from 1983 to 1985 merely "made-up" for the losses of previous years. Put differently, the state is attempting a major program of quality improvements while keeping funding at a constant level, a challenge to which the education system has responded remarkably well so far but a challenge that will be difficult to maintain in the future without gradually increasing funding.

Third, sixty-seven percent of education funding now essentially comes from one level of government, the state, and state-dominated funding has several effects. For example:

- A large portion of hefty state revenue increases simply have offset decreases in local property taxes.
- Because district revenue limits are increased only by state-determined COLAs, property tax increases only offset state revenue increases. Thus, much of the political effort exerted for school funding has benefited property tax owners, not the education system.
- School funding fluctuates with the health of the state economy. When the state's economy sours, as it did in the early 1980s, funding for education also sours.
- California gives K-12 education a lower priority when state revenues are tight than most other states.
- By reducing the number of governmental bodies actively involved in allocating revenues for elementary and secondary schools from over 1,000 to 1, California eliminated competition among districts that in the past provided increases in local education funding.

Fourth, California's school financing has slid from a position of national leadership to a position far below average during the past twenty-five years, and Proposition 13 reinforced this slide. Recent funding infusions have helped, but they have not raised California to a position of education fiscal good health relative to states with which it competes.

The key reform objectives of SB 813 seem today to be "on track." Yet, while these education reforms seem to be taking hold, new issues continue to evolve. California faces five major elementary/secondary education issues over the next five years:

- Fully implementing the goals and objectives of SB 813
- Strengthening current education policies to reflect the realities of changing student demographics
- Addressing the dropout problem
- Restructuring and strengthening the teaching profession
- Funding capital construction

California K-12 education needs an additional $7.2 billion in the next five years to stay even, maintaining the current level of real resources per pupil. This represents a 7.0 to 7.7 percent annual rise in nominal revenue growth. Moreover, there are a variety of reasonable scenarios that would result in substantial increases in education revenues in real terms over the next five years, and real revenue increases would allow the education system to addresss the issues outlined above.

The price tag for continued reform, excluding captial construction, totals about $5.3 billion, just about what the extra revenue would be if revenue increases followed their 1983 to 1985 paths, a possibility but a tough one. Such a revenue increase over five years would bring California back into the top quartile of all states in terms of expenditures per pupil, a place it needs to be if it seriously wants to compete with other states. Funding capital construction would add another $5 billion to the cost.

Strategies for raising additional revenues include an increase in the sales tax by one penny or a property tax reform that maintains the spirit of Proposition 13 but eliminates its unintended consequences. In contrast, the lottery will not provide a large amount of new revenues.

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Policy Analysis For California Education

Policy Analysis for California Education, PACE, is a university-based research center focusing on issues of state educational policy and practice. PACE is located in the Schools of Education at the University of California, Berkeley and Stanford University. It is funded by the William and Flora Hewlett Foundation and directed jointly by James W. Guthrie and Michael W. Kirst. PACE has expanded to include satellite centers in Sacramento and Southern California. These are directed by Gerald C. Hayward (Sacramento) and Allan R. Odden (University of Southern California).

PACE efforts center on five tasks: (1) collecting and distributing objective information about the conditions of education in California, (2) analyzing state educational policy issues and the policy environment, (3) evaluating school reforms and state educational practices, (4) providing technical support to policy makers, and (5) facilitating discussion of educational issues.

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Introduction

In 1983 California enacted Senate Bill 813, a comprehensive bill designed to reform and improve the state's public elementary and secondary education system. Three years into implementation, there are several signs that reform is working: students are taking more and tougher academic courses; school days and years have been lengthened, some significantly; achievement test scores are rising; beginning teacher salaries have risen in most districts; several programs designed to enhance the teaching profession are being implemented and seem to have teacher support; expectations for students specifically and the education system generally have been raised; and the funding declines of the early 1980s have been reversed. California provided the education system with substantial new funds but coupled them with SB 813 reform mandates. So far, the strategy seems to be successful. More money for reform, the education *quid pro quo* in California (as well as several other states), seems to be the way to strengthen and upgrade the state's public school system.

But the state cannot rest on its recent accomplishments. The public elementary and secondary education system was allowed to decline over several years, and it will take several years to rebuild it. Further, it is much too early to tell if SB 813 is "really working"; while important structural changes have occurred, the extent of change inside schools and classrooms, the real focus of reform, is not yet fully known. Further, full implementation of the letter and spirit of SB 813 will require many years of sustained effort and funding, and funding already seems to be waning. Finally, there are several new and difficult challenges facing California's public schools in the next three to five years that will require as much resolve and financing as SB 813. Forming strategies to address these problems and adequately financing them will be difficult given the continued need to finance reform, spending limits on the state budget, and stiff competition for limited new revenues from other areas such as programs for the elderly, immigrants, social services, and the corrections system.

This paper discusses the recent course of elementary and secondary education in California and its needs for the next five years. Since funding is a key element in the health of the system, the first section outlines revenue and expenditure patterns since 1978, the year of Proposition 13. This section shows that California's school financing has slid from a position of national leadership to a position far below average during the past twenty-five years and that Proposition 13 reinforced this fiscal slide. The second section discusses new, pressing education issues for the next five years: full implementation of reform, changing student demographics, the high school dropout rate, decline in the quantity and quality of people entering and remaining in teaching, and capital construction. The last section summarizes revenue needs for these key education issues.

The basic argument developed in the following sections is that, even with recent improvements, California's public education system needs continued high priority policy

attention and even greater additional funding. From a position of national prominence in the 1960s, California's education system has dropped to one of below-national-average quality, a quality level inadequate for the state's increasingly high technology economy. The recent generous policy treatment of education has reversed the decline and even produced gains, but restoring the system to one of national leadership will require continued political leadership and continued investment of public resources.

Trends in School Revenues and Expenditures: 1978 to 1986

A Roller-Coaster Pattern of Funding

The bleak facts are that California public school revenues and expenditures have been volatile and probably inadequate for most of the past decade. These characteristics of the fiscal underpinnings of the largest state public education system in the country explain, at least in part, the drop in quality and public perception of the system that preceded enactment of SB 813. Providing a stable and adequate financial base for California's education system should be the highest priority for state K-12 education policy over the next five years.

The volatile nature of education revenues is best shown by the last two columns in Table 1. Total revenues are adjusted by the number of pupils and the California inflation rate to produce a picture of real, i.e., inflation-adjusted, revenues per pupil. Real revenues per pupil dropped 3.2 percent between 1980 and 1981, dropped another 7.5 percent the next year, and another 4.7 percent between 1982 and 1983. Then SB 813 increased inflation-adjusted revenues per pupil 8.7 percent from 1983 to 1984 and another 7.2 percent from 1984 to 1985. But between 1985 and 1986, real revenues per pupil stayed about the same, increasing just 0.2 percent. Not shown in the chart is a drop in real revenues per pupil of 0.4 percent between 1978 (the year of Proposition 13) and 1979, and then an increase of 7.9 percent between 1979 and 1980. Thus, since 1978, real revenues per pupil for California's K-12 public education system have fallen significantly in three years, risen significantly in three different years, and stayed about the same in two other years, hardly a pattern of consistency, and a pattern making it difficult at best for local educators to plan sound, medium term education programs.

No Real Revenue Increases

But the last two columns of Table 1 also show another important fact, namely, that inflation-adjusted revenues per pupil have not increased one dollar in this decade and have actually dropped slightly. *In other words, even with recent funding infusions, real revenues per pupil in California are now only roughly equal to their level at the beginning of the decade.* Funding increases from 1983 to 1985 merely "made-up" for the losses of the previous three years, and from 1985 to 1986 funding essentially stayed even on an inflation-adjusted, per pupil basis. Put differently, the state is attempting a major program of quality improvements while keeping funding at a constant level, a challenge to which the education system has responded remarkably well so far, but given other pressing problems, a challenge that will be difficult to maintain in the future without gradually increasing funding.

Table 1

K-12 Total Revenues

Year	Total Funding (millions)	Total Funding		1985 Dollars	
		Per ADA	Percent Change	Per ADA	Percent Change
1979-80	$10,981.6	$2,611		$3,933	
1980-81	12,341.2	2,929	12.2%	3,806	-3.2%
1981-82	12,615.4	3,003	2.5	3,520	-7.5
1982-83	12,864.1	3,041	1.3	3,353	-4.7
1983-84	14,144.2	3,321	9.2	3,643	8.7
1984-85	15,950.4	3,686	11.0	3,904	7.2
1985-86[1]	17,356.7	3,912	6.1	3,912	0.2
Cumulative Change:					
Amount	$6,375.10	$1,301.00		-$21.00	
Percent	58.1%	49.8%		-0.5%	

[1] 1985-86 budget as enacted. The Legislative Analyst's figure of $3,912 includes adult education revenues, child care revenues, cafeteria fund revenues, state payments to STRS, and miscellaneous revenues.

Note: Conversion to 1985 dollars based on California CPI.

Source: Legislative Analyst (updated for the 1985-86 budget and corrections as of September 1985).

Centralized Education Funding

One of the reasons education funding has been so volatile is that it essentially comes from one level of government: the state. Proposition 13 dramatically reduced the role of local property taxes and increased the role of state funding for education, as indicated clearly by figures in Table 2. Between 1978 and 1986, property taxes actually fell by $1.7 billion while state revenues rose by $8.2 billion, nearly a three-fold increase. Federal revenues over that period stayed essentially even, rising from $0.9 billion to $1.2 billion. In 1985-86 (excluding lottery revenues) 67 percent of education revenues derived from the state, 21 percent from local property taxes, and just 12 percent from federal and other sources. In 1978 those percentages were only 30 percent from the state, 55 percent from local property taxes, and 15 percent from federal and other sources.

Effects of State-Dominated Funding

This reversal from local governments to the state as the primary source of revenues for education has had a number of significant effects. First, a large portion of hefty state revenue increases simply have offset decreases in local property taxes. For example, while state aid increased by $4.1 billion between 1978 and 1980, a large figure by any comparison, property taxes dropped by $3.1 billion, leaving education with just a $1 billion net increase in revenues from state and local sources.

Second, since school district revenue limits are increased by just the allowable state-determined COLA every year, higher than expected property tax revenue increases simply mean that state revenues need to be increased less. Today, in other words, healthy local property tax increases only offset state revenue increases. Thus, unlike the past when education revenues grew when either or both state and local revenue structures were healthy, today education revenues can rise only as the cost of living rises--above average property tax increases translate mainly into below average state revenue increases for education. Indeed, over the past eight years since Proposition 13, nearly 40 percent of state revenue increases for education were simply replacement dollars for lost local property tax revenues. Much of the political effort exerted for school funding, therefore, has benefited property taxpayers, not the education system.

Three other aspects of the shift to state funding of education have been deleterious for school financing in California. First, school funding depends heavily on the health of the state economy. When it sours, as it did in the early 1980s, funding for education also sours, as numbers in Table 1 amply demonstrate. Rather than being buffered (as in the past) by the stability of local property tax revenues (much less susceptible to fluctuations in the state's or nation's economy), education revenues now ride the waves of change in the state's fiscal health, a key factor explaining the roller-coaster pattern of recent funding.

Table 2

Sources of K-12 Education Funding,
1978-1986
(millions)

Year	Local	State	Federal	Other	Lottery
1977-78	$5,244.6	$2,894.9	$ 891.5	$ 485.6	$ 0.0
1978-79	2,578.6	5,333.5	962.3	551.3	0.0
1979-80	2,180.0	6,998.5	1,100.4	702.7	0.0
1980-81	2,409.8	7,696.0	1,102.1	909.5	0.0
1981-82	2,933.6	7,656.1	1,002.1	821.9	0.0
1982-83	2,941.8	7,786.1	969.3	792.1	0.0
1983-84	2,985.0	9,229.9	1,014.6	792.1	0.0
1984-85	3,387.6	10,345.1	1,071.4	792.1	0.0
1985-86	3,558.4	11,128.8	1,123.3	792.1	243.0

Source: Legislative Analyst.

Second, K-12 education funding hinges strongly on the priority it is given in the state policy agenda. If the history of the early 1980s is a lesson, California gives K-12 education a lower priority when state revenues are tight than most other states in the country (Gold 1983). Thus, by putting the state in the primary (if not only) role for funding K-12 education, California selected a level of government which has tended to give higher funding priorities to other functions.

Third, by shifting funding to the state level, California effectively reduced the number of governmental bodies actively involved in allocating revenues for elementary and secondary education from over 1,000 to 1. By such a change, California eliminated competition among districts that, in the past, provided increases in local education funding. One result of centralized education funding, then, has been diminished local fiscal competition and control. One would predict that such a dramatic elimination of competition would reduce the rate of dollars flowing into the system. Washington is the only other state that has virtually eliminated the role of local school districts from school funding, and it too has seen a marked decline in the rate of funding increases for elementary and secondary schools (Odden 1984a).

These assertions about the impact of Proposition 13 are supported by data in Table 3 which show the rate of change of funding in the seven years before Proposition 13 and in the seven years after Proposition 13. In real terms, the differences between the two periods are large. Total real revenues increased 41 percent in the 7 years before Proposition 13 and actually declined 2 percent in the 7 years afterward. Real revenues per pupil reflect the same trend, rising 48 percent in the seven years prior to Proposition 13 but rising a much smaller amount, just 16 percent, in the seven years afterwards.[1] In short, Proposition 13 essentially halted real revenue increases for California education.

Declining National Standing

Table 4 shows that the decline in California school funding is not just a Proposition 13 phenomenon. Although Proposition 13 may have exacerbated the dropping trend, it by no means created it. In 1962-63, for example, California ranked sixth in the nation in current operating expenditures per pupil for public K-12 education. By 1973-74 the ranking had dropped to 17 (Table 4). The ranking continued to drop both before and after Proposition 13 until it reached a low point of 41 in 1982. Since then, it has crept back to the 26th spot, right in the middle, hardly an eminent position for a state that wants to lead the nation in education, economic growth, and social policy generally.

[1]The reason revenues per pupil rise in percentage terms while total revenues fall is because the number of students declined over this period. So a rise in revenues per pupil is a function mainly of declining student enrollments. Since student enrollments are now rising, revenues per pupil in the future can rise only if total revenues rise.

Table 3

Changes in Total Revenues and Expenditures Per Pupil Before and After 1978 (Proposition 13)

Year	Total Revenues(millions)		Current Expenditures Per Pupil	
	Nominal	Real (1985)	Nominal	Real (1985)
1971	$ 4,184	$ 11,549	$ 808	$ 2,230
1978	8,984	15,169	1,680	2,837
1985	14,815	14,815	3,291	3,291

Note: Conversion to 1985 dollars based on California CPI.

Source: National Education Association

Table 4

California's National Rank in Expenditures Per Pupil, 1984-85 to 1973-74

Year	Expenditures Per Pupil	Rank	Difference from National Average
1984-85	$ 3291	26	- $138
1983-84	2981	27	- 201
1982-83	2735	31	- 209
1981-82	2209	41	- 463
1980-81	2156	30	- 280
1979-80	2163	24	- 37
1978-79	1905	22	- 56
1977-78	1680	22	- 75
1973-74	1171	17	+ 24

Source: National Education Association, Estimates of School Statistics, Selected Years.

The figures in column 4 of Table 4 show, in a different way, the decline in the relative fiscal standing of California's public schools. In 1974 California spent $24 above the national average expenditure per pupil (a figure of about $50 in 1986 dollars). Between 1974 and 1978, spending fell to $75 below the national average. Spending dropped to more than $400 below the national average in the depths of the recession of the early 1980s, and improved to just $138 below the national average by 1984-85. These data show that education funding in California has fallen over the past decade, and even with recent increases, the state still spends below the national average expenditure per pupil. While funding is not the sole determinant of quality in a state's education system, these figures show clearly that education financing had declined precipitiously in the several years before SB 813 and that recent funding infusions have improved the state's position, but that it is still below the national average.

Comparisons to Other States

California's relative fiscal K-12 education position, and some of its causes and impacts, are shown in more specificity in Table 5 which compares California to three states with which it competes politically, educationally, and economically: Michigan, Minnesota, and New York. These three states rank in the top twenty in spending per pupil; California ranks in the bottom twenty. These states spend significantly more for education--$1,933 more in New York, $1,464 more in Minnesota, and $1,586 more in Michigan. They also have students who score higher on national achievement tests and other tests that can be used to compare the results of the education system in terms of student performance.

Table 5 shows that these states simply devote more of their resources to public services, including schools, than does California. California's state and local revenues compose only 3.75 percent of the state's personal income, while it is closer to 5 percent in these other three states. Each of these states, interestingly, has local governments--school districts as well as general governments--active in raising revenues for social purposes. Further, New York and Minnesota have decided that lower class sizes are educationally desirable, having student-teacher ratios of just 16 to 1 and 18 to 1 respectively, compared to California's 24 to 1. Put another way, class size in California's public schools is 50 percent higher than it is in New York, the other large population state in the country with a technological base similar to California's. New York even pays its teachers more on average than California. These figures demonstrate that California's governmental services generally and educational services specifically are not as valued as they are in these other states with which it competes.

Conclusion

In short, California school finance needs improvement. The state has slipped far behind national averages, even farther behind other technologically advanced states with which it competes economically. Recent funding infusions have helped, but they have not raised the state to a position of education fiscal good health relative to other states.

Table 5

Comparisons of Education Expenditures, Teacher Salaries, Student-Teacher Ratios, and Graduation Rates Among California, New York, Minnesota, and Michigan, 1983-84

	California	New York	Minnesota	Michigan
Expenditures per pupil in ADA	$2,912	$4,845	$3,376	$3,498
Rank (expenditures/pupil)	31	3	17	15
State and local revenues as % of personal income	3.75%	4.93%	5.12%	5.01%
State and local expenditures for local schools as % of total government expenditures	22.16%	22.08%	23.77%	25.77%
Teacher salary	$26,403	$26,750	$24,480	$28,877
Students/teacher	24	16	18	23
High school graduation rate (% of ninth grade enrollment four years earlier)	69%	66%	89%	73%

Source: Will S. Myers, Comp., et al. 1984. *How States Rate: Measures of Educational Excellence* . Washington, D.C.: National Education Association.

Key K-12 Education Issues for the Next Five Years

The 1983 education reforms and the funding hikes they stimulated have begun a remarkable turnaround in the quality of the state's educational system. Several studies conducted in the 1983-84 and 1984-85 school years found numerous indicators that California's education reform programs already have begun to change the public education system in the directions desired by the framers of SB 813 (Guthrie and Kirst 1985, Kaye 1985). These findings, coming from studies conducted in the first two years after passage of the reforms, stand in stark contrast to most studies of the initial impact of previous education reforms, especially those at the federal level, which generally found the education system unresponsive to reform objectives in the first few years after passage. But the key reform objectives in California seem today to be "on track."

While education reform seems to be taking hold, new issues continue to evolve. California faces five major elementary/secondary education issues over the next five years:

1. Fully implementing the goals and objectives of SB 813.
2. Strengthening current education policies to reflect the realities of changing student demographics.
3. Addressing the rising high school dropout problem.
4. Enacting new policies to restructure and strengthen the teaching profession.
5. Building and refurbishing classrooms to house the 100,000 new students entering public schools each year.

This section provides an overview of the dimensions of these issues. The paper concludes with an analysis of funding needs required to address these and current education issues.

Fully Implementing the Goals and Objectives of SB 813

While SB 813 already has produced significant structural changes, like longer school days and years and more rigorous graduation requirements, it would be premature to conclude that reform "has worked" in California. The full effects of a major social policy change--such as improving California's elementary and secondary education system--take several years to develop. Structural changes are the first to appear; that they are in the direction of the reform program's goals is good news. But the complete impact of SB 813 will entail the full implementation of curriculum reform, more effective teaching, improved instructional supervision, better student performance (including better performance on both higher level thinking and content area achievement tests), and a rising high school graduation rate.

While California seems to be moving in the right direction in the initial implementation phases of education reform, it will take at least another two to three years to accomplish full implementation. Full implementation can be assessed when data are available to answer the following questions:

1. How are schools using additional time from the longer day and year incentives? Is more staff development occurring? Is more time spent on collegial, school-wide planning?

2. Does the extra counseling for tenth graders produce results? Do students actually *take and pass* the courses suggested? What kinds of follow through activities are needed in the eleventh and twelfth grades, as well as during the tenth grade after the beginning-of-the-year counseling?

3. What is the content of new courses? Are they "old wine in new bottles" or real attempts to revamp the curriculum? What texts are being used to teach them? Are qualified teachers teaching the courses; if so, how were they recruited? Are students doing well in these new courses? If not, which students are stumbling, and what help can be provided to make them more successful? Do students both know more and think better--the ultimate goal of it all--when they finish taking these new courses?

4. Is the mentor teacher program providing an adequate career ladder structure for teachers? Are mentors really mentoring other teachers, or do they mainly develop some new curriculum and attend professional development programs for themselves? Is the program really helping beginning teachers, as originially conceived? Are the best teachers--those who are successful with both students and other teachers--being selected as mentors, or has the local selection process been dominated by teacher politics?

5. Have teacher salaries increased sufficiently to make the economic rewards for teaching adequate? Is the almost $21,000 beginning teaching salary high enough for school districts to recruit bright and able teachers into the profession? What other changes are needed to make teacher compensation economically competitive with other service-oriented occupations in California's service-oriented economy?

6. Have the combined effects of SB 813 in classrooms and schools improved working conditions enough to make them attractive both for recruiting into and retaining able people in the teaching profession?

7. Finally, and perhaps most importantly for the next few years, what are the key factors associated with successful district and school implementation of the goals and objectives of education reform? What factors in state and local education policy help with reform implementation; what factors hinder successful implementation? Which of the programs in SB 813, or other state education programs, have been particularly effective in stimulating and supporting local education improvement and should be strengthened and fully funded; which have had the least effect and perhaps could be dropped, with the funding diverted to the more successful strategies? Further, are there any new policies the state could devise that would help in getting the letter and spirit embodied in SB 813 implemented fully and institutionalized in all local school districts and schools?

These are tough but important questions. Providing answers to them should be the subject of the next rounds of research on local impacts of reform in California. Such research should also include analysis of a California education program that preceded SB 813 and of a more recent State Department of Education initiative unrelated to education reform. The first is the School Improvement Program (SI), now in its fifteenth year and funded with about $200 million. The second is the new Coordinated Compliance Review (CCR), now in its second year. Recently, SI was redesigned to reinforce the goals of SB 813, and CCR was designed also to direct state compliance monitoring, at least in part, to issues that would undergird the implementation of California's education reforms.

School Improvement Program

SI has had a long and successful history, changing over time to address new and evolving education issues. It originally was designed to involve parents and community members in school-level governance and to reduce student-adult ratios in classrooms. It then became a mechanism for general school-wide planning on important but locally determined issues. During these two periods, the program had a major focus on various groups of special needs students--ethnically and linguistically different, low achieving, and handicapped.

While SI's key planning elements remain, the program recently has been revamped to emphasize curriculum improvement, the core academic program, and the redesign of programs for special populations to reinforce and complement the general education program of schools. In addition, state department program advisories have urged local districts to use SI funds to purchase the supports needed to engage in an ongoing change and improvement process--training, staff development, coaching, curriculum materials and supplies, new technologies--and not to lock-in funds for permanent staff such as teacher aides. In short, SI is now conceived as an implementation vehicle for improving local schools, with SB 813 providing the content and focus for those improvement efforts.

Moreover, recent national studies of several state strategies to support local school improvement concluded that California's SI program not only contained the critical elements to stimulate local school change and reform but also that its funding level allowed the program to work more successfully than any other state supported, school-based program of education improvement (Anderson and Odden 1986, Odden and Anderson 1986, Farrar and Flakus-Mosquesda 1986).

Coordinated Compliance Review

The Coordinated Compliance Review procedure, developed recently by the State Department of Education at the urging of Superintendent Bill Honig, streamlines and simplifies the state's oversight responsibilities for local district education program implementation. Today, local districts are subjected to programmatic compliance reviews

only once every three years, and at that time, all major state and federal programs are subject to review (as compared to individual and uncoordinated program reviews in the past).

The "integrated program element" in CCR operationalizes the philosophical intent of a new concept of providing categorical program services that supplement but do not supplant regular services. The integrated element seeks to ensure that students receive all instruction from the regular, core academic program and that additional services from categorical programs are provided on top of and in support of the basic program. Further, the integrated program element requires that SI cover the basic education program and provide a design for how categorical programs services can complement the goals and objectives of that program. Thus, the integrated program element focuses local school attention primarily on the general education program--the primary focus of current education reform--and requires schools to structure extra services for special-need students to help them master the core academic program, again integrating current education reform initiatives with past special-need student initiatives.

The point here is that research on how reform has induced local schools and districts to improve should investigate not only SB 813 programs but also other programs and administrative initiatives designed to upgrade the California education system. What policy makers need to know is how the local education improvement process works and what elements of state policy--those in as well as those that preceded SB 813--help or hinder that process.

Strengthening Policies to Reflect Changing Student Demographics

The importance of integrating programs for special-needs students with the core, academic program is underscored by the changing nature of students enrolled in California's public schools:

- Minority students as a percentage of all students has been increasing steadily, from 27.3 percent in 1970 to 42.9 percent in 1980. PACE reported that California will enroll a majority of minority students by 1990 (Guthrie and Kirst 1985).
- Students who speak a language other than English at home are estimated to constitute 23 percent of California 5 to 17 year-old children. About half of these are limited proficient in English, producing a limited-English-proficient student population of about 12 percent.
- The number and percentage of school-age children from poverty families have been rising steadily. More than 15 percent of school-age children in California are born into families with an income below the poverty level (Teitz 1984), and this figure rises each year.
- Increasing numbers of students are from single-parent or both-working-parent households and are unsupervised for periods of time both before and after school

hours. Nationwide, "latchkey" children are estimated to constitute about 10 percent of all students.

These demographic characteristics mean that the public school system will need to educate a growing number and percentage of students--minorities, limited-English-proficient, and poor--with which, at least in the past, it has not been very successful. Since the state already has a number of categorical programs directed at the special needs of these students,[2] state policy should seek to fund them fully and strengthen them over the next five years.

The evolving linkages between services provided by these programs and key thrusts of current education reform should help ensure that students with special needs attain the knowledge and competencies needed to function well in the evolving economy. In fact, it is critical for the state's labor force that special-needs students acquire the basic academic content and thinking skills needed for the increasingly analytic tasks required for jobs in the state's economy. If expectations for special-needs students have been too low in the past, the raised expectations and requirements from SB 813 for all students, as well as special-needs students, and the conscious attempts to make extra services complement the basic academic program are key elements for ensuring that special needs students benefit from education reform and contribute to the economy when they graduate from high school.

Limited-English-Proficient Students

One particularly vexing special-needs issue concerns those students with a language other than English. First, there are rapidly rising numbers of these students, with over 100 languages represented. Second, California's economy is increasingly oriented towards both the Pacific Rim, where oriental languages, especially Japanese, Chinese, and Korean, prevail, and South America, where Spanish is dominant. Yet, there is considerable misunderstanding of the goals of the state's bilingual education program which is designed to develop English language proficiency among language minority children while also teaching them traditional academic content. It may be time to make some changes to rebuild support for bilingual education program goals. The first might be labeled "changing the symbols" surrounding bilingual education. The label "bilingual education" seems to suggest to some that the program is not geared to developing English literacy and academic content skills. Perhaps a simple name change to a title with "English" in it would be important symbolically and thus secure political support for a critical set of extra education services.

[2]Economic Impact Aid (EIA) for State Compensatory Education (SCE) and Limited-English-Proficient (LEP) students, the state bilingual education program, and state programs for the handicapped, to name the largest.

The second might take seriously the need for all California residents to be proficient in two languages and to move to a system like those in Switzerland and Germany where everyone learns English and one other language, with a choice in California, perhaps, of Spanish, Chinese, Japanese, or Korean. This policy emphasis would not single out just students with limited proficiency in English, but would target all students to make them proficient in at least two languages. This type of policy shift also would change the symbols surrounding language(s) proficiency and long term would help solve the problem of insufficient numbers of teachers qualified to teach in two languages. While the details of either of these policy changes need work, both would serve to expand the political interest in and support of sound language policies in California's public schools.

Enrollment Growth

Perhaps the most significant student demographic fact for California is the increasing number of enrollments. After a decade and a half of decline, California started in 1984 what will be at least a decade of student enrollment increases. Generally, about 100,000 new students are expected to enter California public schools each year for the next five years, a very rapid increase, just about the same high rate experienced in the 1950s and 1960s. These large enrollment increases mean that funding will need to be increased substantially each year just to finance services for new students, and that classrooms will need to be built or leased to provide space in which to teach them. The large fiscal implications of this turnaround in enrollments will be outlined in the last section.

Addressing the High School Dropout Rate

California, like many states, is experiencing a seemingly large and perhaps rising percentage of students who drop out of secondary schools. While hard, valid data are not available, dropout figures of 18 percent, when computing grade 10 to 12 completion (Stern et al. 1985), to 34 percent, when computing grade 1 to 12 completion (Guthrie and Kirst 1985) are commonly used. While minority dropout rates historically have been high, a recent phenomenon is the rise of the Anglo dropout rate.

Recent studies of the dropout issue, nationally and in California, show California dropouts to have similar general characteristics to dropouts nationally and identify similar reasons for dropping out. Students drop out for three primary reasons:

1. Poor academic performance. Dropouts tend generally to be achieving below expected grade level standards, and many dropouts have failed courses on their record. Both factors make it difficult to earn the number of course credits needed to graduate--in the dropouts' eyes, impossible.

2. Conditions in their immediate family. Dropouts tend to live in one-parent families, usually with their mother, often (for teenage girls) become teenage parents themselves, are mainly from families with incomes below the poverty level, and from minority families. The dropout rate for black students in California is about 28

percent, about 29 percent for Hispanic students, and just over 15 percent for Anglo students.

3. Personal economic reasons, including the need to get a job in order to earn money.

In short, most dropouts need money and feel they are unlikely to graduate from high school even if they stay in.

Concern for the dropout problem has risen recently, in part because many feel that current education reforms (including SB 813), by stiffening requirements for graduation from high school, limiting choice in subjects taken (by requiring more core academic courses), and increasing standards, will make it more difficult for some students to finish high school and thus force more students to drop out. Several bills introduced recently to the California legislature reflect this concern.

While evidence for this concern is anecdotal, there is research that suggests education reform and reducing the high school dropout rate are not incompatible. McDill, Natriello, and Pallas (1985) suggest that while requiring more academic courses and fewer electives may not be the best way to improve performance for low achievers, it does not necessarily diminish performance and it does increase performance for high achievers. They cite other research that suggests education reform's interest in increasing the amount of time spent on education may help low achievers. Research supports the assertion that the amount of time spent on school tasks matters, and these authors identify research which shows that low achieving students who do one to three hours of homework a week achieve at the level of average achieving students who do not spend time on homework--that more time improves performance.

Finally, and perhaps most importantly, they cite research which shows that students in classrooms with low as compared to high standards are more likely to cut class, and that higher demands, even for lower achieving students, generally are associated with greater student effort and performance. Of course, the trick is to set higher demands at a level students can perform and to motivate students toward that higher performance. But they conclude that the main thrusts of education reform do not have to result in higher dropout rates, although they strongly urge states to monitor the effect on dropout rates (as the Quality Indicators in California will do).

Nevertheless, the dropout rate seems to be high in California and represents a problem. First, students who drop out, on average, have lower employment rates, lower wage rates for and employment in menial jobs with few opportunities for betterment when employed, and little opportunity for on-the-job training for skill improvement, their greatest need (Stern et al. 1985). Second, California's labor force needs all the well trained high school graduates the education system can produce over the next twenty years (McCarthy and Valdez 1985). Because there simply are fewer students of high school age, the economy cannot afford the loss of students from the labor force because they drop out of high

school. Thus, for both individual and state economic reasons, California needs to lower the high school dropout rate.

Strategies for Reducing Dropouts

Dual strategies need to be developed. The first, focused on the cause of dropping out, includes reform and improvement of middle and junior high schools (discussed below), and complete implementation of SB 813 (discussed previously). The second, focused on the symptom and reality of dropping out, includes new programs for at-risk students already in high school.

Most students, as noted above, drop out because they feel they will not pass enough courses to earn a high school diploma. They are performing below grade level when they reach high school, and they often have failed courses on their record. Thus, in a sense, dropping out is a symptom, not the cause of a problem. While the tenth grade counseling program is an attempt to help high school age students plan an academic path that will allow them to graduate, earlier intervention may also be appropriate (Swain 1985).

The junior high or middle school years, grades 6-8, seem to be an arena for renewed policy focus. It turns out that the achievement level of many dropouts is between the fifth and eighth grade level, which suggests that learning stopped during the middle school years. A concerted effort to improve education in middle and junior high schools seems warranted. There is a research base describing the characteristics of effective middle schools (Lipsitz 1984, for example). Expansion of SI into more secondary schools, with a planning structure more appropriate for secondary schools, could draw on this base in formulating new strategies. A key focus for all middle schools would be to ensure continued student achievement in basic skills throughout these years.

For students already in high school, there are several complementary strategies that could be attempted. Research (Natriello 1985, Raywid 1985, Berlin 1984) indicates that effective programs for at-risk youth have the following characteristics:

1. Structures (usually small in size) that provide a cohesive school community with a strong sense of affiliation, similar to a membership organization that one joins.

2. A variety of environments, from which the student selects the one to which s/he will make a commitment. Street academies with strict attendance behavior and focus on academic skills, caring communities for those who find it difficult to deal with the impersonal nature of regular schools, school enterprise programs in which goods are produced for sale, and work brigades which entail doing service work for other people are examples.

3. A learning ethos characterized by clear and fair rules, rewards for individual student effort and progress, and normative emphasis on academic excellence. Instructional modes should include individual, small group, and whole group instruction and stress cooperative rather than competitive learning groups.

4. Job opportunities for learning behaviors needed in the work place and for earning money needed for individual economic reasons.

5. District and community/business backing and support.

This suggests the following for new state policy:

1. Have the state, in cooperation with the business community, promise a job for all students who graduate from high school and who choose not to pursue post-secondary education. This type of strategy, called Jobs for America's Graduates, in Arizona and Delaware, and now proposed by the governor of New York, has a track record of success and usually costs little. It is functioning in Boston with apparent success. It provides, in a concrete way, an economic incentive for any student who "sticks with-it" and graduates from high school. It eliminates the excuse that a job may not be available even if a student finishes high school.

2. Provide part-time jobs during the school year for those students who need them for economic reasons, but link these opportunities to school activities and programs that build academic skills and good school attendance. Students need sound basic skills to survive in the labor market over time. Jobs programs that include basic skill training work over the long term; those that do not usually produce little long term effects.

3. Especially for economically disadvantaged at-risk youth, offer a summer job corps program, but have the students work half-time and study half-time. Students from poor backgrounds tend to regress in academic achievement significantly over the summer months. Continued study during the summer as part of a jobs program has been shown to contribute significantly to maintenance of academic skills and is a key element of summer programs with long term payoff for students.

4. Offer alternative settings to the regular school for students who, even with the above opportunities, do not function well in large, urban, impersonal high schools. Offer students a choice of alternative settings but require strong commitments from them in order to enroll in their choice.

The fact is that the country and the states have the technology for serving at-risk youth; all that is required is allocation of funds for the above types of programs that research has shown to be effective.

Restructuring and Strengthening the Teaching Profession

Implementing education reform and responding to the issues described above rely heavily on a good teacher workforce. California, like the nation, however, faces an emerging crisis in teaching. Evidence from several sources indicates that the quality of people entering and remaining in the teaching profession is declining, i.e., teachers today seem to be less able, in terms of academic talent, than those in the past. Other evidence suggests that not enough people are entering the profession, i.e., teacher shortages in critical subjects (like mathematics, science, and bilingual education) today are likely to

become general shortages in the next five years. California faces both a quantity and quality problem with its teaching workforce, just at a time when sufficient numbers of high quality teachers are crucial for the role education must play in sustaining the state's economic health.

Teacher Supply and Demand

In the next five years, California will need to add about 85,000 new teachers to a classroom teaching workforce that now totals about 163,000 (Cagampang et al. 1985). Put differently, California will need to produce a number of new teachers in the next five years that equals a staggering 50 percent of the current workforce.

That would be a difficult challenge in normal times; today that challenge is made more difficult by several factors. On the demand side:

- Increasing student enrollments raise the system's need for more teachers.
- Increasing teacher retirements (a demographic phenomenon of the age of those now in teaching) raises the system's need for more teachers.
- Pressure to lower class size (a working condition issue in California) also raises the system's need for more teachers.

Combined, these factors make the demand for teachers very strong in the next five to ten years.

While demand is rising, supply, unfortunately, seems to be declining:

- Teacher demographics (mainly the increasing age of teachers) mean that fewer people now in teaching will stay in the profession.
- Declining numbers of high school-age students mean that the pool of potential teachers is dropping because there will be fewer people entering post-secondary training. Since the percentage of those in higher education who choose teacher training also has dropped, the number of teachers produced by higher education, which has fallen dramatically, may continue to drop or at best may stabilize at a level far below what it used to be.
- Equal opportunity programs, which in the past two decades have expanded job and professional opportunities for women and minorities, have eroded the historic pool of both quantity and quality to which education had major access.
- The increasing service nature of the economy, which now provides service-oriented individuals with a wide array of opportunities beyond teaching, most of which offer both better salaries and working conditions, increases the private sector competition for people who might select teaching as a profession.
- Teacher salaries, even with recent increases, have declined relative to other occupations, making teaching less attractive economically.

- Occupational prestige and school working conditions have declined, thus making schools less desirable workplaces for academically talented, service-oriented people.

Thus, just at a time when education in California requires large numbers of new, high quality teachers, demand and supply forces are moving in opposite directions. Conservative estimates project a teacher shortage of 35,000 by 1990 (Cagampang et al. 1985).

Strategies for Restructuring Teaching

Remedying these problems will take courage, creativity, and resources. The issues cut to the core of the role education needs to play in the state's (and nation's) economic health. The recent report of the California Commission on the Teaching Profession (1985) provides the framework within which these issues need to be resolved. While individuals may disagree with specifics of those recommendations, the structure of the recommendations is that which California must address in order to provide the 85,000 new *and talented* people needed to teach school between now and 1991.

First, the teaching career needs to be restructured, rigorous professional standards need to be developed, and teacher training needs to be revised and strengthened. The Commission's recommendations paint the outlines of these changes for the profession. To begin, a body of pedagogical knowledge (i.e., knowledge in addition to content area knowledge) needs to be codified as the basis of professional training and the focus of rigorous state or national tests to enter the profession. Since research in the past two decades has now identified an array of effective teaching practices (Wittrock 1986), it is now possible to articulate, train people in, and test people for proficiency in those techniques. Next, as with other professions, clinical intern training needs to follow classroom training and to precede full entry into the profession.

Additionally, career options within teaching need to be developed to provide promotional opportunities for teachers. Career ladder structures, mentor teacher programs, master teacher programs, and board certified positions are examples. A restructuring of school staffing may also be needed, to give master teachers more responsibility by having them supervise adjunct teachers, i.e., people not fully credentialed but who perform instructional tasks.

Finally, alternative routes into teaching that virtually eliminate training, like the current teacher trainee program, need to be dropped and replaced with mechanisms that allow entry through non-traditional means but that maintain the integrity of the need for people who teach to develop skills within the professional knowledge of effective teaching. Distinctions need to be made between people who are fully credentialed and can rise into high positions on a career ladder, and those who may serve for three to five years as members of a teacher corps, with some training but not enough for a full credential. While

the details of implementing such structural changes may be difficult, the fact is that rigorous professional standards need to be developed and enforced, training needs to be strengthened and based on current research, and the career structure itself, now flat, needs to offer promotional opportunities for advancement, recognition, and economic rewards.

Second, working conditions for teachers need to be improved, i.e., schools need to be redesigned as more professional, attractive, and productive workplaces for teachers and students. For California, this probably means reducing class sizes (which still can reach 40 students in high school English sections), providing sufficient numbers of classrooms to house rising student enrollments, and providing sufficient instructional materials and texts. These are expensive requirements, but unless the unattractive elements of inordinately large classes, insufficient classroom space, and old textbooks are remedied, schools will be unable to offer attractive physical work environments for the bright people they need to entice to enter and remain in the profession.

Schools also need to be de-bureaucratized and rebuilt into more professional organizations. Research is quite clear that schools "work" when characterized by intense collegial interactions, clear goals, goal consensus among teachers and administrators, teachers in charge of technical decision making, professional evaluation systems, and effective staff development training programs. Students achieve at high levels, teachers continually expand their skills, feel successful in their work, experience intrinsic rewards, and as a result, become intensely committed to their work and the profession (Rosenholtz 1985a, 1985b, 1985c). Perhaps the most critical ingredient for teacher retention is the development within schools of these effective schools characteristics. Expansion of California's School Improvement Program, as suggested above, strengthening the instructional leadership role of principals (including revising their professional preparation), and formally giving teachers more professional control over the technical functioning of schools are the elements of this goal, and all are relatively low cost items.

Third, compensation packages need to be improved. Beginning pay needs to be raised, a policy California initiated in SB 813. The target for beginning pay should be the average beginning pay for liberal arts college graduates (the pool within which schools compete for new teachers), and the target should vary across regional labor markets in the state. Top pay also needs to be raised; a target could be the average salary for middle level managers in the private sector, a position to which many who leave teaching rise. Alternatively, top pay could be increased to between 2.5 and 3.0 times beginning pay for full-time, career teachers.

Further, teaching needs to be offered as a full-time, 12-month occupation for those professional, career-oriented people who see teaching as a full-time (not nine month), paid occupation. As local school districts provide more year-round school programs, such options could evolve naturally (paying teachers substitute pay for teaching an extra three months in a year-round program saves money in the short run but demeans the profession

over time). Finally, districts must provide teachers with full experience credit in moving from district to district, rather than the current maximum of five to seven years of credit. Mobility is an important element of an attractive profession; current practice, which limits teaching to decades of service in one district unless an individual is willing to suffer economic penalties, benefits neither the district nor the teacher.

Three other elements of compensation revision should be addressed. First, payment for extra education should be eliminated and replaced by career ladder structures which reward teachers for performance, responsibility, and number of months worked. Second, California should consider eliminating the current state retirement program and replacing it with an individual annuity that is owned by each teacher, such as the TIAA-CREF program developed years ago for professors of higher education. State retirement programs inhibit movement across states (a real problem now that California needs so many new teachers) and fosters uneconomic behavior near retirement (people try to maximize the average of their last five years of service, the basis for retirement annuities). Portable annuities would ensure retirement benefits for teachers and offer them mobility options that are assumed as elements of other professions. Third, California might want to consider sabbattical options for teachers. While this item is costly, even the private sector increasingly realizes that professionals need periodic times to pursue professional study and reinvigorate themselves. Sabbattical programs should be competitive, with weight given to proposals that will benefit the school, the profession, and the individual teacher.

If the state raises teachers' pay, it would be valuing teacher compensation above other public sector jobs such as police, fire, and sanitation. Since salaries for all public sector jobs often are linked together (either formally or informally), proposals for raising teachers' salaries imply changing the linkage by elevating teachers to a higher level. While such changes may take political courage, the argument is that the needs for improving the quality of public schools, which include improving the quality of people who teach in them, justify this political raising of the status of education. Further, even though changes in California's economy to one more high-technology- and service-oriented seems in the short run to lower overall average salaries and make average employment less secure, both of which make the teaching job appear more attractive, many feel that the teaching profession still needs the improvements, including salary increases, outlined in this section, in order to upgrade sufficiently the capabilities of those who staff public schools.

Funding Capital Construction

Proposition 13 eliminated California school districts' ability to raise funds through local bonded indebtedness for capital purposes. As a result, districts have postponed refurbishing old schools and are behind in constructing new schools to house increasing numbers of students. While the State Allocation Board is struggling with limited capital construction funds (which total about $1 billion spread over several years), the need for capital construction revenues is large and growing. Although the 1985 legislature passed

several measures that would have provided such funds, the governor vetoed all of them. Since then, the governor has had the Department of Finance conduct a survey of local district facilities needs.

The key factors in determining facilities needs are the number of students and class size, which determine the number of classrooms needed. From that is subtracted the number of used classrooms, the extent of unused and under-used space, thus producing the number of new classrooms needed.

School capital construction will require an extra $5 billion over the next five years. The State Allocation Board estimates that $2.6 billion is needed for enrollment growth of about 100,000 new students each year (on average, each new classroom seat costs about $10,000). The State Department of Education estimates that about half the school buildings over 30 years old need refurbishing, with a backlog now of about $2 billion; that figure rises by about $300 million each year, putting total rehabilitation costs at $3.5 billion over the next five years. New construction and rehabilitation costs sum to $6.1 billion. With the $1 billion now available for capital construction, the price tag for capital construction over the next five years totals a net $5 billion.

From the Department of Finance survey, the governor recently estimated capital construction costs at an extra $4.3 billion: $2.8 billion for new construction, $1 billion for renovation, and $500 million for air conditioning classrooms for year-round school schedules. The big difference in cost estimates, obviously, is in the price-tag for renovation. The bottom line, however, is that California needs to find between $4 billion and $5 billion extra over the next five years simply to provide classroom space for students.

Public Education Revenue Needs for the Next Five Years

Previous sections outlined trends in school financing and identified key education issues the state faces for its public elementary and secondary school system through the 1991 school year. In this final section, revenue growth based on recent trends will be projected for a five year period and compared to the revenue requirements for the above issues.

Projections of Revenue Requirements and Growth

Table 6 presents projections of revenue requirements for California's public schools over the next five years, assuming a flat real level of expenditures per pupil ($3,912 in 1985-86 dollars). The figures show that merely "staying even" will require considerable new funds. Assuming an average inflation rate of about 5 percent and using Department of Finance projections of student enrollments, the table shows that the state will need to add between $1.2 billion and $1.7 billion in each of the next five years, for a total of $7.26 billion, simply to maintain the current level of real resources per pupil.

However, this represents only a 7.0 to 7.7 percent annual rise in nominal revenues, which is not that large a number. For example, general fund revenues are expected to grow by over 8 percent between FY86 and FY87 and general fund expenditures by about 7.2 percent. While education revenues will need to rise to a total of $24.62 billion between 1985-86 and 1990-91, the annual increases needed to do so seem to be in-line with normal state revenue growth. Further, if recent inflation figures hold, inflation might be under 5 percent for the next half decade, a fact which reduces these revenue needs.

The figures in Table 7 (from Osman 1985) show that if revenue growth for elementary and secondary education simply maintains its position relative to growth in state personal income over the 1980 to 1986 time period, when the elasticity was just 0.832, the education system should have about $25.3 billion in revenues in 1991. This is above the mark needed to maintain a steady fiscal state with a 5 percent inflation rate. But maintaining a steady fiscal state means no expansion of current programs. Further, trying to continue to improve education quality with no new resources is a quest with dubious potential for success. However, if inflation drops to 2.5 percent, the $25.3 billion figure would produce an extra $3 billion in public school revenues.

Table 7 further shows that if California continues to allocate revenues for its public schools like it has done during the more recent reform period, substantially larger numbers of new dollars will be added to the system. For example, if revenue growth relative to personal income maintains the trend of 1982 to 1985, revenues will grow to $27.2 billion by 1991. If revenue growth relative to personal income maintains the heady trend of the

Table 6
Projections of Revenue Requirements Due to Rising Enrollment and Inflation, 1985-90

Year	Per ADA K-12 exp (1985-86$)	Enrollment increase	ADA increase (ADA/enroll) ratio=.9897	Annual increase over previous year for enrollment growth (inflated $)	Annual increase for inflation of 1985-86 base	Annual increase for inflation % enrollment growth	Total annual revenue requirement (inflated $)	Increase over 1985-86 budget
				millions	millions	millions	millions	millions
1985-86	$3,912							
1986-87	3,912	92,699	91,744	$376.8	$867.8	$1,244.7	$18,601.4	$1,244.7
1987-88	3,912	87,795	86,891	393.6	911.2	1,304.8	19,906.2	2,549.5
1988-89	3,912	88,050	87,143	433.2	956.8	1,389.9	21,296.2	3,939.5
1989-90	3,912	105,105	104,022	544.8	1,004.6	1,559.4	22,855.6	5,489.6
1990-91	3,912	126,082	124,783	710.9	1,054.9	1,765.8	24,621.4	7,264.7

Note: Projections assume a 5% inflation factor.

Source: Policy Analysis for California Education (PACE) analysis based on California State Department of Finance projections of enrollment increase.

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Table 7

Projections of K-12 Revenue Available Based on Three Alternative Income Elasticities

Year	1979-80 to 1985-86 Elasticity =0.832	1981-82 to 1984-85 Elasticity =1.000	1982-83 to 1984-85 Elasticity =1.250	State Personal Income[3] (billions)	Percent Increase
85-86	$17,357	$17,357	$17,357	$399.2	
86-87	18,594	18,844	19,215	433.4	8.57%
87-88	20,029	20,592	21,443	473.6	9.28%
88-89	21,620	22,558	24,001	518.8	9.54%
89-90	23,361	24,741	26,903	569.0	9.68%
90-91	25,285	27,190	30,230	625.3	9.89%

[1]For general methodology see, Jack W. Osman. 1985. *Revenue and Expenditure Projections for California K-12 Education 1985-86 through 1989-90.* Berkeley: Policy Analysis for California Education, University of California, Berkeley.

[2]Figures provided by the Legislative Analyst.

[3]State personal income (actual & projected) from "The UCLA Business Forecast for California," September 1980.

[4] Mean % Increase = {end value - beginning value}/[{end value + beginning value}/2]

[5]Elasticities equal the ratio of the mean percent increase in K-12 revenue to the mean percent increase in state personal income.

Source: See notes one, two, and three.

first two years of reform--1983 to 1985--revenues would grow to $30.2 billion by 1991. Under these two scenarios, education revenues--beyond those needed for enrollment growth and inflation--would rise in real terms by a total of $2.6 billion to $5.6 billion. In other words, there are a variety of reasonable scenarios that would result in substantial increases in education revenues in real, i.e., inflation-adjusted, terms over the next five years.

Funding Reform

Real revenue increases would allow the education system to address the issues and problems addressed in the preceeding sections as indicated by the figures in Table 8. Assuming that continuing to implement quality improvements will take at least a 10 percent increase in real revenues (see Odden 1984a),[3] an extra $2.46 billion ($1.73 billion in current dollars) would be needed by 1991 over and above the $24.6 billion total needed to maintain the current steady fiscal state. This extra funding could be used, for example, to expand School Improvement to all schools, to add science courses and equip classrooms (which turns out to be expensive), to implement fully new curriculum programs, to add a writing program in high school by reducing class sizes for English teachers, to reduce class sizes in high schools for all courses required for graduation, to add pre-school programs for at-risk 3- and 4-year-olds (a policy now shown by research to have significant long term payoffs), to reform and improve junior high and middle schools, and to strengthen elementary schools.

Providing the resources to fund fully all state programs for special populations--the handicapped, limited-English-proficient, and economically disadvantaged--including the projected rise in the number of students needing these programs, might take another $300-$500 million. For example, just increasing the percent of students eligible for state special education funding from the current ten percent to eleven percent, a figure still under the national average percent of handicapped students, would cost $155 million. Developing well funded programs to reduce the high school dropout rate will require another $300-$500 million. Reducing the high school dropout rate is expensive because success ultimately fuels increased funding requirements for the revenue limit formula. Indeed, if all 100,000 high school dropouts remained in school, the revenue limit formula would need an extra $250 million (the product of the current revenue limit of $2,500 times 100,000 new students).

Implementing recommendations to restructure and strengthen the teaching profession, as the Commission on Teaching discovered, also is expensive. Reducing class size by an average of five students would cost at least $800 million. Adding revenues for adequate materials and supplies would require another $60 million, bringing the total for addressing the physical amenitites of teaching to $860 million. Raising teacher salaries and adopting a career ladder structure would take another $795 million--$31 million to hike beginning

[3]Most estimates of the cost of education reform are in the 20 to 25 percent range.

Table 8

California Education Revenue Needs

1. To continue to implement education reform by increasing revenues per pupil by 10 percent	$ 1,736	million
2. Fully funding programs for special populations	$300-500	million
3. Funding programs to reduce the high school dropout rate, including additional revenue limit needs	$300-500	million
4. Strengthening the Teaching Profession		
Reducing class size from 30 to 25	$ 800	million
Providing sufficient instructional materials	$ 60	million
Providing higher salaries		
raising beginning salaries	$ 30	million
across the board increases of 10 percent	$ 450	million
board certified positions	$ 110	million
expansion of mentor program to 25 percent of all teachers	$ 210	million
sabbaticals for teachers	$ 200	million
5. Capital Outlay	$ 5,000	million

Note: Cost figures for strengthening the teacher profession are taken from California Commission on the Teaching Profession (1985). Figures are five year totals in current year dollars.

salaries, $450 million for across-the-board and higher top salaries, $107 million for a board certified position, and $209 million to expand the mentor program to about 25 percent of all teachers. Finally, providing sabbaticals for teachers would require another $203 million.

Building and refurbishing schools and classrooms, as noted in the previous section, would take another approximately $5 billion by 1991.

Excluding capital construction, these figures total about $5.3 billion, just about what the extra revenues would be if revenue increases followed their 1983 to 1985 paths, a possibility but a tough one. Such a revenue increase over this five year period would bring California back into the top quartile of all states in terms of expenditures per pupil, a place it needs to be if it seriously wants to compete with other states such as New York, Massachusetts, Michigan, Minnesota, Washington, and Oregon.

Gann Limits

Raising educational revenues, however, might be restricted by the Proposition 4 spending limitations. While education aid allocated through the revenue limit formula is not subject to these limitations, a low inflation rate could result in local districts', especially declining enrollment districts', bumping up against the limitations. Then the state would be faced with the dilemma of needing to increase education funding to continue quality improvements or to abandon education reform. Current talk of reallocating money within education might produce some new fiscal flexibility, but unlikely in the magnitude outlined above. Turning categorical programs for special student populations, such as special and compensatory education, into mandates would provide greater fiscal leeway by eliminating those expenditures from Proposition 4. If Proposition 4 is triggered for education, the problems and needs discussed in the previous section simply become more acute.

Strategies for Raising Revenues

Even if spending limits can be overcome, real revenue rises may be difficult to produce without some type of revenue enhancement program at the state or local level. Providing the resources for captial construction also may require changes in how revenues for capital purposes are produced. Any discussion of raising California's public sector revenues, however, needs to proceed with caution. First of all, there is little sentiment today for raising taxes or modifying Proposition 13. Second, additional revenues seem to derive from "revenue enhancement or loop-hole-closing" mechanisms, such as those that produced several additional millions of dollars in 1983 to help fund SB 813. The latter, however, are episodic and provide undulating revenue streams which help explain, in part, the uneven stream of education revenues discussed in the first section. Put differently, the tax limitation spirit is still strong in California.

However, with the above cautions in mind, two of the many potential strategies for raising revenues (see Chapman and Winkler 1984) might be considered. First, most states that have enacted and funded a comprehensive education reform, such as SB 813, have increased the sales tax by one penny to pay the cost. California was able to avoid such a tax increase in 1983 because the economy was rebounding so rapidly from the recession. But the economy may not continue producing additional revenue at that pace. Raising the sales tax by a penny would produce around $2 billion, the bulk of the extra revenues needed to continue education quality improvements.

Second, the level of the local property tax, and the growing inequities in the burden of the property tax, make conditions ripe for a property tax reform that maintains the spirit of Proposition 13 but eliminates several unanticipated consequences. The major inequity arises from Proposition 13's restriction on increases in assessed valuations, which after being rolled back to 1977 levels can rise only when property is sold. Since property values have risen substantially since 1977--nearly three-fold--and since the local property tax rate is pretty much fixed at one percent of assessed value, people with the same value house in the same community pay widely varying levels of property taxes, the difference being caused solely by the time when the house was bought, i.e., totally unrelated to individual economic condition and ability to pay. These rampant inequities spell difficulty for the property tax over time since it will become a tax identified as increasingly unfair.

If all property were reassessed each year and the current tax rate (one percent) lowered to produce the same revenue, the burden would be made fair and the tax itself would be far less than one percent of market value, the key goal of Proposition 13. Two possibilities for new local revenues would then emerge. First, local districts could vote to increase the property tax rate to provide additional sources of revenue for school purposes, as well as vote tax increases to support new bonded indebtedness for building schools. A cap of one percent on the total tax rate could be retained, thus limiting the degree to which school districts--or any local government--could tap this new potential. While it is difficult to estimate the total potential new revenues this change would allow, there is little question that it could solve many revenue needs for capital construction, and it also could make major contributions to the additional operating revenues needed by the education system.

There are several other potential revenue sources for capital construction. The first is tidelands oil revenues. While these funds may drop with the fall in the price of oil, $150 million is commonly projected to be available for each of the next five years. If these revenues were used to pay interest on a bond issue, they could produce $1.5 billion in capital construction funds. Developers fees are also possible, but as currently used they burden only people who buy new houses in growing school districts. Proposals to place a uniform, for example one percent, tax on all new construction would spread the burden as well as reduce it to a more manageable level. Year-round school operation would reduce capital construction needs somewhat, but also would raise current operating expenses; the net fiscal impact is unclear. Finally, any element requiring a local match for capital

construction needs to include a viable option for raising the funds. One option is the local benefit district. Another is included in the property tax reform outlined above. It is unrealistic to expect districts to provide capital construction matching funds from their general fund.

Lottery Funds

Finally, contrary to public perception, the lottery will not provide a large amount of new revenues. For each billion dollars in lottery sales, only $240 million or $60 per child (enough to purchase three textbooks) becomes available for public schools. Initially, the legislative analyst's office projected lottery revenues totalling $243 million for FY86. That might now be low given the popularity of the lottery. Even if the figure increases to $350 million or $400 million, though, it falls short of the billions needed to keep the system even fiscally, let alone to provide funds for quality improvements. One way to assess lottery funds is that they probably will be sufficient to cover *one year* of student enrollment growth--assuming an average current expenditure of $3,500 and 100,000 new students. The lottery clearly helps, but much more is needed.

CONCLUSION

California began restoring the quality of its public education system in 1983 by demanding more of teachers and students and providing new funds to improve the system fiscally. By all counts, the strategy seems to be working. But like several reform states, commitment to maintain funding increases might be waning (Odden 1986), just at a time when all evidence suggests education reform strategies are working and when continued funding is needed to maintain progress in upgrading the system and to respond to urgent new problems in the next five years. California will need to continue the press for education reform and concomitant funding in order to educate its students so that the state can continue to compete with other states with high technology, service-oriented economies and in order to maintain its presence in Pacific Rim and South American markets.

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